

1. An interconnection system for providing signals to a plurality of independently controllable electronic modules, the interconnection system comprising:
- a first plurality of connection terminals associated with each and every one of the plurality of electronic modules; and
- 5 a second plurality of connection terminals associated with the plurality of electronic modules except a first one of the electronic modules, the second plurality of connection terminals electrically connected to the first plurality of connection terminals.

10 2. The interconnection system of claim 1 further comprising a third plurality of connection terminals associated with the plurality of electronic modules except the first one of the electronic modules and a second one of the electronic modules, the third plurality of connection terminals electrically connected to the second plurality of connection terminals.

15 3. The interconnection system of claim 2 further comprising a fourth plurality of connection terminals associated with the plurality of electronic modules except the first one of the electronic modules, the second one of the electronic modules, and a third one of the electronic modules, the fourth plurality of connection terminals electrically connected to the third plurality of connection terminals.

20 4. The interconnection system of claim 1 wherein:

the first plurality of connection terminals includes:

a first subset of connection terminals associated with the first one of the electronic modules and positioned at a first location on the first plurality of connection terminals;

25 a second subset of connection terminals associated with a second one of the electronic modules and positioned at a second location on the first plurality of connection terminals; and

the second plurality of connection terminals includes:

a third subset of connection terminals associated with the second one of the electronic modules and positioned at a third location on the second plurality of connection terminals corresponding to the first location on the first plurality of connection terminals, the

third subset of connection terminals electrically connected to the second subset of connection terminals.

5. The interconnection system of claim 4 further comprising a third plurality of connection terminals and wherein the second plurality of connection terminals further includes a fourth subset of connection terminals associated with a third one of the electronic modules and positioned at a fourth location on the second plurality of connection terminals; and the third plurality of connection terminals includes a fifth subset of connection terminals associated with the third one of the electronic modules and positioned at a fifth location on 10 the third plurality of connection terminals corresponding to the fourth location on the second plurality of connection terminals, the fifth subset of connection terminals electrically connected to the fourth subset of connection terminals.

15. The interconnection system of claim 1 wherein the first plurality of connection terminals and the second plurality of connection terminals include connection terminals associated with a common ground signal, a precharge control signal and a logic power control signal.

20. The interconnection system of claim 6 wherein each of the first plurality of connection terminals of the second plurality of connection terminals includes an upper gate signal (On+), a lower gate signal (On-), a current feedback signal (Ifb), a voltage feedback signal (Vfb), and a temperature signal (Temp) associated with the first one of the electronic modules and the second one of the electronic modules, respectively.

25. An interconnection system for providing signals to a plurality of independently controllable electronic modules, the interconnection system comprising:

a substrate including:

a first plurality of connection terminals associated with each and every one of the plurality of independently controllable electronic modules;

30. a second plurality of connection terminals associated with the plurality of independently controllable electronic modules except a first one of the electronic modules; and

a plurality of conductive traces extending between the second plurality of connection terminals and the first plurality of connection terminals.

9. The interconnection system of claim 8 wherein:

5 the first plurality of connection terminals includes:

a first subset of connection terminals associated with the first one of the electronic modules and positioned at a first location on the first plurality of connection terminals;

10 a second subset of connection terminals associated with a second one of the electronic modules and positioned at a second location on the first plurality of connection terminals; and

the second plurality of connection terminals includes:

15 a third subset of connection terminals associated with the second one of the electronic modules and positioned at a third location on the second plurality of connection terminals corresponding to the first location on the first plurality of connection terminals; and

conductive traces extending between the third subset of connection terminals and the second subset of connection terminals.

20 10. An interconnection system for providing signals to a plurality of independently controllable electronic modules, the interconnection system comprising:

a first substrate associated with a first one of the plurality of independently controllable electronic modules, the first substrate including:

25 a first plurality of connection terminals for receiving control signals to control each and every one of the plurality of independently controllable electronic modules;

a second plurality of connection terminals for receiving control signals to control each of the plurality of independently controllable electronic modules except a first one of the electronic modules; and

30 a plurality of conductive traces extending between the second plurality of connection terminals and the first plurality of connection terminals.

11. The interconnection system of claim 10 further comprising:

a second substrate associated with a second one of the plurality of independently controllable electronic modules, the second substrate including:

5            a third plurality of connection terminals for receiving control signals to control each of the plurality of independently controllable electronic modules except the first one of the electronic modules;

10          a fourth plurality of connection terminals for receiving control signals to control each of the plurality of independently controllable electronic modules except the first one of the electronic modules and a second one of the electronic modules; and

15          a second plurality of conductive traces extending between the fourth plurality of connection terminals and the third plurality of connection terminals.

12.       A system comprising:

20          a plurality of independently controllable electronic modules, a first one of the independently controllable electronic modules including a first plurality of connection terminals and a second plurality of connection terminals, the second plurality of connection terminals associated with all but one of the plurality of independently controllable electronic modules and electrically connected to the first plurality of connection terminals.

25          13.      The system of claim 12 wherein a second one of the independently controllable electronic modules includes a first plurality of connection terminals associated with all but one of the plurality of independently controllable electronic modules and a second plurality of connection terminals associated with all but two of the plurality of independently controllable electronic modules.

30          14.      The system of claim 12 further comprising conductive traces which electrically connect the first plurality of connection terminals to the second plurality of connection terminals.

15.       The system of claim 12 wherein:

the first plurality of connection terminals includes:

a first subset of connection terminals associated with the first one of the electronic modules and positioned at a first location on the first plurality of connection terminals;

5        a second subset of connection terminals associated with a second one of the electronic modules and positioned at a second location on the first plurality of connection terminals; and

the second plurality of connection terminals includes:

10      a third subset of connection terminals associated with the second one of the electronic modules and positioned at a third location on the second plurality of connection terminals corresponding to the first location on the first plurality of connection terminals, the third subset of connection terminals electrically connected to the second subset of connection terminals.

15      16.     A system for distributing control signals from a controller, the system comprising:

20      a chain of sequentially-connected independently controllable electronic modules, an initial one of the electronic modules including a first plurality of connection terminals adapted to receive the control signals from the controller, and a sequential one of the electronic modules including a second plurality of connection terminals configured to receive only a subset of the control signals.

25      17.     The system of claim 16 wherein the subset of the control signals received by the second plurality of connection terminals include control signals for all but one of the independently controllable electronic modules.